US009637022B2

(12) **United States Patent**
Gavling et al.

(10) **Patent No.: US 9,637,022 B2**
(45) **Date of Patent: May 2, 2017**

(54) **ELECTRIC DRIVE MODULE AND METHOD FOR OPERATING AN ELECTRIC DRIVE MODULE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 89 days.

(21) Appl. No.: **14/700,210**

(22) Filed: **Apr. 30, 2015**

(65) **Prior Publication Data**

US 2016/0318419 A1 Nov. 3, 2016

(51) **Int. Cl.**
F16H 48/36 (2012.01)
B60L 15/02 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***B60L 15/025*** (2013.01); ***B60L 11/14*** (2013.01); ***B60L 15/2036*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC F16H 48/36; F16H 2048/364; F16H 2048/368; B60L 15/025; B60L 15/2036
See application file for complete search history.

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(57) **ABSTRACT**

An electric drive module and a method for switching a drive module between a torque vectoring and at least one propulsion mode are provided. A controller can switch the drive module to the torque vectoring mode when a first set of conditions is met and can switch to one of the propulsion modes when either a second or a third set of conditions is met. The first set can include: torque requested by an operator is less than or equal to a first demand threshold; and a vehicle velocity is greater than or equal to a first velocity threshold. The second set can include: the vehicle velocity is less than a second velocity threshold; and a vehicle lateral instability is less than or equal to an instability threshold. The third set can include: the torque requested by the operator of the vehicle is greater than a second demand threshold.

20 Claims, 6 Drawing Sheets